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EXAMINER

KEBEDE, BROOK

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/973,133	YAMAZAKI ET AL.	
	Examiner	Art Unit	
	Brook Kebede	2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-12, 17-20 and 33-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 9-12, 17-20 and 33-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Claims 9-12, 17-20, and 33-44 in the response filed August 21, 2003 is acknowledged.
2. Claims 1-8, 13-16, 21-32, and 45-58 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the response filed August 21, 2003. Accordingly, claims 1-8, 13-16, 21-32, and 45-58 have been canceled by the applicants.
3. Claims 9-12, 17-20 and 33-44 are now pending in the application.

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 9-12, 17-20, and 33-44 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of copending

Application No. 10/158,658. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons:

Re claims 9-12, 17-20, and 33-44 the subject matter of the claimed limitation fully claimed in the subject matter of claimed limitations of claims 1-87 of co-pending application 09/158,658.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 12, 17-20, 36, 40, and 41-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites the limitation "the cathode insulating" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 41 recites the limitation "the cathode insulating" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claims 18-20 and 42-44 also rejected as being dependent of the rejected independent base claim.

Claims 12, 20, 36, 4, and 44 recite "wherein the light emitting device is included in an electric device selected from the group consisting of a video camera, a digital camera, a goggle type display, a head mounted display, a navigation system, an audio reproducing device, a car

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audio, an audio component, a notebook computer, a game machine, a portable information terminal, a mobile computer, a cellular phone, a portable game machine, an electronic book, an image reproducing device, and a digital versatile disk (DVD) player” in lines 1-7 respectively.

However, the instant application invention is directed to method of repairing LED which is the EL composed of the driver and the transistor only. However, the instant application claimed invention does not directed to repairing of a video camera, a digital camera, a goggle type display, a head mounted display, a navigation system, an audio reproducing device, a car audio, an audio component, a notebook computer, a game machine, a portable information terminal, a mobile computer, a cellular phone, a portable game machine, an electronic book, an image reproducing device, and a digital versatile disk (DVD) player. Hence, the recited claims lack clarity in their meaning and scope. Therefore, the claims are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. *See Ex parte Lyell* 17 USPQ2d 1548 (8/16/1990).

Accordingly, claims 12, 20, 36, 4, and 44 have not been further treated on the merits.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 9, 11, 17, 19, 33, , 35, 37, 39, 41, and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Tang et al. (EP/0704912).

Re claim 9, Tang et al. disclose method of repairing a light emitting device comprising a step of: applying a first voltage and a second voltage in order between an anode and a cathode of the light emitting device, wherein the anode and the cathode are located in a light emitting element with a light emitting layer interposed therebetween, and wherein the first voltage and the second voltage are reverse bias voltages of different levels (see Tang et al. Pages 2-11).

Re claim 11, as applied to claim 9 above, Tang et al. disclose all the claimed limitations including the limitation wherein the light emitting element is an electro-luminescence element (see Tang et al. Pages 2-11).

Re claim 17, Tang et al. disclose a method of repairing a light-emitting device comprising a step of: applying a first voltage and a second voltage in order between an anode and a cathode of the light-emitting device thereby making a portion where a reverse-bias current flows between the anode and the cathode insulating or highly resistive, and wherein the anode and the cathode are located in a light emitting- element with a light emitting layer interposed therebetween, and wherein the first voltage and the second voltage are reverse bias voltages of different levels (see Tang et al. Pages 2-11).

Re claim 19, as applied to claim 17 above, Tang et al. disclose all the claimed limitations including the limitation wherein the light emitting element is an electro-luminescence element (see Tang et al. Pages 2-11).

Re claim 33, Tang et al. disclose a method of repairing a light-emitting device comprising a step of: applying a first voltage and a second voltage in order between an anode and a cathode of the light emitting device wherein the anode and the cathode are located in a light-emitting

element with a light-emitting layer interposed therebetween, and wherein the first voltage is a ground voltage while the second voltage is a reverse bias voltage (see Tang et al. Pages 2-11).

Re claim 32, as applied to claim 33 above, Tang et al. disclose all the claimed limitations including the limitation wherein the light-emitting element is an electro-luminescence element (see Tang et al. Pages 2-11).

Re claim 37, Tang et al. disclose a method of repairing a light emitting device comprising a step of, gradually changing a voltage applied between an anode and an cathode of the light emitting device from a first voltage to a second voltage, wherein the anode and the cathode are located in a light-emitting element with a light emitting laver interposed therebetween, and wherein one of the first voltage and the second voltage is a ground voltage while the other is a reverse bias voltage (see Tang et al. Pages 2-11).

Re claim 39, as applied to claim 37 above, Tang et al. disclose all the claimed limitations including the limitation wherein the light-emitting element is an electro-luminescence element (see Tang et al. Pages 2-11).

Re claim 41, Tang et al. disclose a method of repairing a light emitting device comprising a step of: applying a first voltage and a second voltage in order between an anode and a cathode of the light emitting device, thereby making a portion where a reverse-bias current flows between the anode and the cathode, and wherein the anode, and the cathode are located in a light emitting element with a light emitting layer interposed therebetween, and wherein the first voltage is a ground voltage while the second voltage is a reverse bias voltage (see Tang et al. Pages 2-11).

Re claim 43, as applied to claim 41 above, Tang et al. disclose all the claimed limitations including the limitation wherein the light-emitting element is an electro-luminescence element (see Tang et al. Pages 2-11).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 10, 18, 34, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang et al. (EP/0704912).

Re claim 10, as applied to claim 9 above, Tang et al. disclose all the claimed limitations except wherein the first voltage and the second voltage are within $\pm 1.5\%$ of an avalanche voltage of the light emitting element.

However, selection of the first and second voltage within $\pm 1.5\%$ of an avalanche voltage of the light emitting element would have been achieved by ordinary skill in the art because if

excess voltage selected it may cause stress and breakdown of the TFT (thin film transistor) which integral part of EL. Therefor it is desired to optimize the voltage within desired rage so that such breakdown will not be occurred.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to selection of the fist and second voltage within $\pm 1.5\%$ of an avalanche voltage of the light emitting element because if excess voltage selected it may cause stress and breakdown of the TFT (thin film transistor) which integral part of EL and it is desired to optimize the voltage within desired rage so that such breakdown will not be occurred, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Re claim 18, as applied to claim 17 above, Tang et al. disclose all the claimed limitations except wherein the first voltage and the second voltage are within $\pm 1.5\%$ of an avalanche voltage of the light emitting element.

However, selection of the fist and second voltage within $\pm 1.5\%$ of an avalanche voltage of the light emitting element would have been achieve by ordinary skill in the art because if excess voltage selected it may cause stress and breakdown of the TFT (thin film transistor) which integral part of EL. Therefor it is desired to optimize the voltage within desired rage so that such breakdown will not be occurred.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to selection of the fist and second voltage within $\pm 1.5\%$ of an avalanche voltage of the light emitting element because if excess voltage selected it may cause stress and breakdown of the TFT (thin film transistor) which integral part of EL and it is desired to optimize the

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voltage within desired range so that such breakdown will not be occurred, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Re claim 34, as applied to claim 33 above, Tang et al. disclose all the claimed limitations except wherein the first voltage and the second voltage are within $\pm 1.5\%$ of an avalanche voltage of the light emitting element.

However, selection of the first and second voltage within $\pm 1.5\%$ of an avalanche voltage of the light emitting element would have been achieved by ordinary skill in the art because if excess voltage selected it may cause stress and breakdown of the TFT (thin film transistor) which is an integral part of EL. Therefore it is desired to optimize the voltage within desired range so that such breakdown will not be occurred.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to selection of the first and second voltage within $\pm 1.5\%$ of an avalanche voltage of the light emitting element because if excess voltage selected it may cause stress and breakdown of the TFT (thin film transistor) which is an integral part of EL and it is desired to optimize the voltage within desired range so that such breakdown will not be occurred, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Re claim 38, as applied to claim 37 above, Tang et al. disclose all the claimed limitations except wherein the first voltage and the second voltage are within $\pm 1.5\%$ of an avalanche voltage of the light emitting element.

However, selection of the first and second voltage within $\pm 15\%$ of an avalanche voltage of the light emitting element would have been achieved by ordinary skill in the art because if excess voltage selected it may cause stress and breakdown of the TFT (thin film transistor) which is an integral part of EL. Therefore it is desired to optimize the voltage within desired range so that such breakdown will not be occurred.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to selection of the first and second voltage within $\pm 15\%$ of an avalanche voltage of the light emitting element because if excess voltage selected it may cause stress and breakdown of the TFT (thin film transistor) which is an integral part of EL and it is desired to optimize the voltage within desired range so that such breakdown will not be occurred, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Re claim 42, as applied to claim 41 above, Tang et al. disclose all the claimed limitations except wherein the first voltage and the second voltage are within $\pm 15\%$ of an avalanche voltage of the light emitting element.

However, selection of the first and second voltage within $\pm 15\%$ of an avalanche voltage of the light emitting element would have been achieved by ordinary skill in the art because if excess voltage selected it may cause stress and breakdown of the TFT (thin film transistor) which is an integral part of EL. Therefore it is desired to optimize the voltage within desired range so that such breakdown will not be occurred.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to selection of the first and second voltage within $\pm 15\%$ of an avalanche voltage of

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the light emitting element because if excess voltage selected it may cause stress and breakdown of the TFT (thin film transistor) which integral part of EL and it is desired to optimize the voltage within desired range so that such breakdown will not be occurred, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Yamada et al. (US/5,990,629) also disclose similar inventive subject matter.

Correspondence

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brook Kebede whose telephone number is (703) 306-4511. The examiner can normally be reached on 8-5 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on (703) 306-2794. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Brook Kebede

BK
November 30, 2003

**W. DAVID COLEMAN
PRIMARY EXAMINER**

